

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for separating nucleic acids from a sample containing nucleated cells, comprising:

1) bringing the sample containing nucleated cells into contact with a lysis solution containing at least a cellular component-degrading enzyme and a surfactant prior to contacting the nucleated cells with a water-insoluble solid phase carrier, whereby the nucleated cells are lysed directly in the sample and,

2) bringing the sample containing lysed nucleated cells into contact with a water-insoluble solid-phase carrier having an average particle size of 0.01 to 1000 μm in the presence of a water-soluble organic solvent to adsorb and bind nucleic acids released from the nucleated cells onto the surface of the solid-phase carrier, thereby obtaining a solid-phase carrier having adsorbed nucleic acids, and

3) separating the solid-phase carrier from the sample;
thereby separating and purifying said nucleic acids.

2. (Original) The method for separating nucleic acids according to claim 1, wherein the cellular component-degrading enzyme is at least one enzyme selected from the group consisting of amylase, lipase, protease, and nuclease.

3. (Original) The method for separating nucleic acids according to claim 1, wherein the surfactant is an anionic surfactant.

4. (Original) The method for separating nucleic acids according to claim 1, wherein the water-insoluble solid-phase carrier comprises at least one compound selected from the group consisting of polystyrene, polypropylene, polyacrylates, polymethyl methacrylate,

polyethylene, polyamides, glass, silica, silicon dioxide, silicon nitride, zirconium oxide, aluminum oxide, and zinc oxide.

5. (Previously Presented) The method for separating nucleic acids according to claim 1, which further comprises 4) washing the separated solid-phase carrier.

6. (Currently Amended) The method for separating nucleic acids according to claim 5, which further comprises 5) eluting the nucleic acids ~~adsorbed onto~~ off of the solid-phase carrier.

7. (Previously Presented) A nucleic acid-extracting reagent kit, comprising:
at least a cellular component-degrading enzyme, a water-insoluble solid-phase carrier, a surfactant and a water-soluble organic solvent;
wherein said kit is capable of separating and purifying nucleic acids from a sample containing nucleated cells.

8. (Previously Presented) The method for separating nucleic acids according to claim 1, comprising: contacting a hemolytic agent with a blood sample.

9. (Previously Presented) The method for separating nucleic acids according to claim 8, wherein said hemolytic agent is selected from the group consisting of ammonium chloride, ammonium oxalate, saponin and mixtures thereof.

10. (Previously Presented) The method for separating nucleic acids according to claim 8, wherein said hemolytic agent contains from 0.01 to 0.5 M of ammonium chloride.

11. (Previously Presented) The method for separating nucleic acids according to claim 8, wherein said hemolytic agent is used in an amount of 0.1 to 30 equivalent volumes, based on 1 volume of blood analyte.

12. (Previously Presented) The method for separating nucleic acids according to claim 10, wherein said hemolytic agent containing 0.01 to 0.5M ammonium chloride heated at 30 to 85°C.

13. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein a concentration of each enzyme is from 0.01 to 50 mg/ml, provided that a reagent having an enzyme purity of 80% or more is used.

14. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein said surfactant is sodium dodecyl sulfate, sodium laurate, sodium dodecylbenzenesulfonate, sodium sulfate, sodium higher alcohol sulfate, ammonium lauryl sulfate or mixtures thereof.

15. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein a concentration of said surfactant in the lysis solution is from 0.01 to 15% (w/v).

16. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein the enzymatic treatment is carried out under at 30 to 85°C for 0.1 to 10 hours.

17. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein the water-soluble organic solvent is a hydroxyl group-containing solvent.

18. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein the water-soluble organic solvent is at least one compound is selected from the group consisting of butanol, 2-butanol, pentanol, 2-pentanol, methanol, ethanol, propanol, isopropanol and mixtures thereof.

19. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein the water-soluble organic solvent is ethanol, isopropanol or mixtures thereof.

20. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein the concentration of the water-soluble organic solvent at nucleic acid extraction is from 25 to 100% by volume.

21. (Previously Presented) The method for separating nucleic acids according to claim 1, wherein a salt, a water-soluble polymer, a polysaccharide, and/or a surfactant are added prior to or simultaneously with the addition of the water-soluble organic solvent.

22. (Previously Presented) The method for separating nucleic acids according to claim 21, wherein, if present, the concentration of the salt to be added to the solvent solution is from 0.1 to 50 mM, the concentration of the water-soluble polymer or polysaccharide in the solvent solution is from 0.0001 to 10% (w/v) and the concentration of the surfactant is 0.01 to 15% (w/v).